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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/080,671  
Filing Date: February 25, 2002  
Appellant(s): ANDERSON, CHARLES EDWARD

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Anderson, IV  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed April 22, 2009 appealing from the Office action mailed January 22, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

|                 |               |        |
|-----------------|---------------|--------|
| US 6,041,360    | Himmel et al. | 3-2000 |
| US 2002/0065936 | Schiuma       | 5-2002 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 22-29, 39-45, 48, and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Himmel et al. – hereinafter Himmel (US 6,041,360).

As per claims 1 and 39, Himmel discloses a method for identifying frequently accessed domain names in a customer premises equipment that includes a memory

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and a communication interface, the frequently accessed domain names to be provided to a network gateway for use in domain name system caching, comprising the steps of:

(a) searching files in the memory to identify the frequently accessed domain names; and (Col 6 lines 19-28; Each bookmark entry is comprised of a URL to a favorite page and an associated descriptive text string which describes the web page in such a way to be easily recognized by the user, Col 18 lines 17-30; Fig. 13, Fig. 1: items 49-51)

(b) providing the frequently accessed domain names to the communication interface for transmission to the network gateway (Col 4 lines 43-53; Fig. 1: item 40; as it functions as any device that interfaces one or more CPE devices to a network when read in light of applicant's disclosure) over a communication path; (Col 18 lines 17-30; Figure 13)

wherein the files in the memory comprise application data files that hold frequently accessed domain names. (Col 18 lines 17-30; Figure 1: items 49-51)

As per claim 2, Himmel discloses the method of claim 1, wherein the customer premises equipment runs an operating system, and wherein steps (a) and (b) are initiated during start-up of the operating system. (Col 4 line 54 – Col 5 line 6)

As per claim 3, Himmel discloses the method of claim 1, wherein the customer premises equipment runs an operating system, and wherein steps (a) and (b) are initiated periodically by the operating system. (Col 4 line 54 – Col 5 line 6)

As per claim 4, Himmel discloses the method of claim 1, wherein steps (a) and (b) occur in response to the execution of an application by a user of the customer premises equipment. (Col 5 lines 7-12)

As per claims 5, 25, and 40, Himmel discloses the method of claim 1, wherein step (a) comprises searching application data files associated with a Web browser application. (Col 9 lines 43-60)

As per claims 6, 26, and 41, Himmel discloses the method of claim 1, wherein step (a) comprises searching application data files associated with an electronic mail application. (Col 5 lines 59-67)

As per claims 7, 27, and 42, Himmel discloses the method of claim 1, wherein step (b) comprises packetizing the frequently accessed domain names and providing the packetized information to the communication interface. (Col 1 lines 41-53)

As per claims 8, 28, and 43, Himmel discloses the method of claim 1, wherein step (b) comprises storing the frequently accessed domain names in a management information base and providing the management information base to the communication interface. (Col 10 lines 10-15; Figure 6A)

As per claims 9, 29, and 44, Himmel discloses the method of claim 1, wherein step (b) comprises generating a domain name system query that includes the frequently accessed domain name and providing the domain name system query to the communication interface. (Col 18 lines 17-30; Figure 13)

As per claim 22, Himmel discloses a customer premises equipment comprising:  
a memory that stores files, wherein the files comprise application data files that hold frequently accessed domain names; (Col 6 lines 19-28; Each bookmark entry is comprised of a URL to a favorite page and an associated descriptive text string which describes the web page in such a way to be easily recognized by the user, Figure 1 :items 49-51)

a communication interface for transmitting information to a network gateway;  
and (Col 4 lines 43-53; Fig. 1: item 46 as it functions as any device that interfaces one or more CPE devices to a network when read in light of applicant's disclosure)

a processor coupled to the memory and the communication interface; (Fig. 1: item 22)

wherein said processor is configured to search the files in the memory to identify frequently accessed domain names (Col 18 lines 17-30; Figure 13)

and to provide the frequently accessed domain names (Col 18 lines 17-30; Figure 13) to the communication interface for transmission to the network gateway. (Fig. 1: item 40)

As per claim 23, Himmel discloses the customer premises equipment of claim 22, wherein the memory comprises a hard disk drive. (Col 4 lines 54-Col 4 line 65)

As per claim 24, Himmel discloses the customer premises equipment of claim 22, wherein the communication interface is a home phoneline network interface, an Ethernet interface or a Universal Serial Bus interface. (Col 4 lines 54-65)

As per claims 45, 48, and 50, Himmel discloses the method of claim 1, wherein the customer premises equipment comprises a personal computer. (Col 3 line 64-Col 4 line 11)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-21, 30-38, 46-47, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (US 6,041,360) in view of Schiuma (US 2002/0065936).

As per claims 10 and 21, Himmel discloses a method for selectively caching domain name system information on a network gateway that includes a cache, wherein



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the network gateway is attached to a customer premises equipment that includes a memory, comprising the steps of:

(a) searching files in the memory to identify a frequently accessed domain name; (Col 6 lines 19-28; Each bookmark entry is comprised of a URL to a favorite page and an associated descriptive text string which describes the web page in such a way to be easily recognized by the user; Col 18 lines 17-30; Fig. 13, Fig. 1: items 49-51)

(b) providing the frequently accessed domain name from the customer premises equipment to the network gateway; (Col 4 lines 43-53; Fig. 1: item 40; as it functions as any device that interfaces one or more CPE devices to a network when read in light of applicant's disclosure)

(c) generating, in the gateway (Fig. 1: item 40), a domain name system query that includes the frequently accessed domain name; (Col 6 lines 1-18, Col 18 lines 17-30)

(d) transmitting the domain name system query from the network gateway (Fig. 1: item 40) to a network for resolution; (Col 18 lines 17-30; Figure 13)

(e) receiving, in the gateway, (Fig. 1: item 40) a response to the domain name system query from the network that includes the frequently accessed domain name and a corresponding IP address; and (Col 6 lines 1-18)

wherein the files in the memory comprise application data files that hold frequently accessed domain names. (Col 18 lines 17-30; Figure 13)

Himmel fails to disclose (f) storing the frequently domain name and the corresponding IP address in the cache. Schiuma (f) storing the frequently domain name and the corresponding IP address in the cache. ([0032]; browsers cache DNS responses and do not make a DNS request every time they connect to a web site) In reference to KSR International Co. v. Teleflex Inc., 550 U.S. -, 82 USPQ2d 1385 (2007), it would been obvious and yielded predictable results to implement a DNS cache in the browser of Himmel to yield predictable results. The rationale would have been to provide faster resolution times to domain name requests.

As per claim 11, please see the discussion under claim 2 as similar logic applies.

As per claim 12, please see the discussion under claim 3 as similar logic applies.

As per claim 13, please see the discussion under claim 4 as similar logic applies.

As per claims 14 and 33, please see the discussion under claim 5 as similar logic applies.

As per claims 15 and 34, please see the discussion under claim 6 as similar logic applies.

As per claims 16 and 35, please see the discussion under claim 7 as similar logic applies.

As per claims 17 and 36, please see the discussion under claim 8 as similar logic applies.

As per claims 18 and 37, please see the discussion under claim 9 as similar logic applies.

As per claims 19 and 38, Himmel / Schiuma disclose the method of claim 10, and Himmel discloses wherein step (c) comprises generating a domain name system query in accordance with an iterative resolution protocol. (Col 6 lines 1-18)

As per claim 20, Himmel / Schiuma disclose the system of claim 10. Schiuma discloses further comprising:

(g) receiving, in the network gateway, a domain name system query from the customer premises equipment; and ([0032])

(h) resolving, in the network gateway, the domain name system query from the customer premises equipment using a domain name and corresponding IP address stored in the cache. ([0032])

As per claim 30, Himmel discloses a system for selectively caching domain name system information in a network gateway, comprising:

a customer premises equipment (CPE) including a memory that stores files, (Fig. 1: item 24) a communication interface for transmitting information over a communication path, (Fig. 1: items 12, 13)

and a CPE processor coupled to the memory and the communication interface,  
(Fig. 1 : item 22)

wherein the CPE processor is configured to search the files to identify a frequently accessed domain name and to provide the frequently accessed domain name to the communication interface for transmission over the communication path; and (Col 6 lines 19-28; Each bookmark entry is comprised of a URL to a favorite page and an associated descriptive text string which describes the web page in such a way to be easily recognized by the user; Col 18 lines 17-30; Fig. 13)

a network gateway (Col 4 lines 43-53; Fig. 1: item 40 including a cache (Col 6 lines 19-28), as it functions as any device that interfaces one or more CPE devices to a network when read in light of applicant's disclosure) a CPE interface for receiving information over the communication path, (Fig. 1: items 28, 29) a network interface for transmitting information over a network, (Col 18 lines 17-30; Fig. 13: item 1) and a gateway processor coupled to the cache, the CPE interface, and the network interface, (Fig. 1: item 22)

the gateway processor configured to receive the frequently accessed domain name from the communication path via the CPE interface, (Col 18 lines 17-30; Fig. 13)

to generate a domain name system query that includes the frequently accessed domain name, (Col 18 lines 18-30; Fig. 13) to provide the query to the network interface for transmission to a network for resolution, (Col 18 lines 18-30; Fig. 13: item 1) to

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receive a response to the query from the network via the network interface that includes the frequently accessed domain name and a corresponding IP address, (Col 6 lines 1-18; Col 18 lines 18-30; Figure 13: item 2) and

wherein the files in the memory comprise application data files that hold frequently accessed domain names. (Col 18 lines 17-30; Figure 13)

Himmel fails to disclose to store the frequently accessed domain name and the corresponding IP address in the cache. Schiuma discloses store the frequently accessed domain name and the corresponding IP address in the cache. ([0032]; browsers cache DNS response) In reference to KSR International Co. v. Teleflex Inc., 550 U.S. -, 82 USPQ2d 1385 (2007), it would be obvious and yielded predictable results to implement a DNS cache in the browser of Himmel to yield predictable results. The rationale would have been to provide faster resolution times to domain name requests.

As per claim 31, please see the discussion under claim 23 as similar logic applies.

As per claim 32, please see the discussion under claim 24 as similar logic applies.

As per claims 46-47, and 49, please see the discussion under claim 45 as similar logic applies.

## **(10) Response to Argument**

**A. Rejection of claims 1-9, 22-29, 39-45, 48, and 50 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,041,360 to Himmel et al.**

**Applicant argue: A1.** The Rejection of Claims 1, 22 and 39 is in Error and Must be Reversed

### **Examiner's Response to A1.**

In response to applicant's arguments for claims 1, 22, and 39, the recitation "for use in domain name system caching" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In reference to claim 1, examiner fails to see any mention of domain system caching actually performed at the network gateway in the body of the recited claim language.

In response to applicant's argument that Himmel fails to recite "for use in domain name system caching", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order

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to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In response to applicant's arguments that examiner does not address the claim feature of "domain name system caching" at a network gateway, examiner notes that in the case of claim 1, the claim limitations recite, "providing the frequently accessed domain names to the communication interface for transmission to the network gateway over a communication over a communication path". The network gateway and the communication interface are separate from each other. Applicants have mischaracterized the reference. Examiner interprets the I/O controller 40 is the communications interface and serves as an intermediary in the path to the network gateway (Figure 13: item 503)

In response to applicant's arguments that Himmel does not disclose providing any information to the I/O controller 40 of Himmel for use in "domain name system caching" and that I/O controller 40 lacks DNS caching capabilities, examiner fails to see any mention of domain system caching actually performed at the network gateway in the body of the recited claim language as recited above.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the network gateway 204 facilitates the bi-directional transfer of IP packets, further comprises a DNS cache for caching DNS information that is relevant to applications running on one or more of the attached CPE devices) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments that Himmel does not provide any information to the I/O controller, examiner points out that URL that corresponds to the bookmark entry per Col 6 lines 19-31, is sent to the communications interface which functions as an intermediary, to access the web site per Figure 13.

In reference to applicant's argument that examiner did not reject claim 1 in combination with the Schiuma reference, applicant's arguments with respect to Schiuma are moot with respect to claim 1 because the Schiuma reference does not apply to the current claims for discussion.

Therefore, examiner has shown the limitations of claims 1, 22, and 39 are anticipated by Himmel.

**Applicants argue A2.** The Rejection of Claims 2 and 3 is in Error and Must be Reversed.

**Examiner's response to A2.**

In response to applicant's arguments that Himmel merely describes the physical storage of a set of instruction and says nothing of how any steps, let alone steps corresponding to steps (a) and (b) of claim 2 and 3 are initiated, examiner points that per Col 4 line 54 – Col 5 line 6, "Further, the set of instructions can be stored in the memory of another computer and transmitted over a local area network or a wide area



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network such as the Internet when desired by the user.” The steps of "searching for files" and "providing the frequently accessed domain names" are instructions. This happens during startup as indicated by Himmel per Col 15 line 56- Col 16 line 11, “In other browsers, at *the next startup*, the browser checks for updated bookmark sets and installs any such bookmark sets.”

**Applicants argue A3.** The Rejection of Claim 4 is in Error and Must be Reversed

**Examiner’s response to A3.**

In response to applicant’s arguments that Himmel merely states that the disclosure is intended to be interpreted as not requiring any "action by a human operator", examiner notes that Himmel also discloses the alternative per Col 5 lines 7-12 that “While the operations performed may be in response to user input”.

**Applicants argue A4.** The rejection of claims 6, 26 and 41 is in Error and Must be Reversed.

**Examiner’s response to A4.**

In response to applicant’s arguments that Himmel says nothing of searching files in memory comprising searching application data files associated with an electronic mail application, applicants admit that MIME type information are associated with e-mail. To

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further add, Himmel discloses searching for files associated with an email application per Col 6 line 62 – Col 7 line 3, " A bookmark set is a finite collection of bookmarks that have static and dynamic characteristics. An action such as selection, deletion or *e-mail transmission* can be accomplished for the entire set in a single operation by the user." Examiner points out the searching process of the most frequently accessed domain names which is a bookmark entry comprised of a URL to a favorite page and an associated descriptive text string which describes the web page in such a way to be easily recognized by the user (Col 19 lines 19-28). Himmel describes this per Col 17 lines 57-62, "A web browser can detect a change in either a site's title or URL location due to redirection. If either condition exists, *the bookmark entries, e.g., in the active bookmark set, are searched* for a match with the current web site. If the entry is not found in the bookmark set, processing continues as usual."

**Applicants argue A5.** The Rejection of Claims 7, 27, and 42 is in Error and Must be Reversed.

**Examiner's Response to A5.**

In response to applicant's arguments that Himmel says nothing of "packetizing the frequently accessed domain names" or of "providing the packetized information to the communications interface", examiner point out that packetizing the frequently accessed domain names is inherent to an TCP/IP Protocol suite (Col 6 lines 1-18) or communicating via a web browser on an internet. To further highlight, Himmel discloses

per Col 1 lines 25-40, "The World Wide Web, or simply "the Web", is the Internet's multimedia information retrieval system. It is the most commonly used method of transferring data in the Internet environment."

**Applicants argue A6.** The Rejection of Claims 8, 28, and 43 is in Error and Must be Reversed

**Examiner's Response to A6.**

In response to applicant's arguments that Himmel does not disclose "providing the management information base to the communication interface", applicants have again mischaracterized the reference. The bookmarks from Figure 6A are submitted to the communication interface, or Figure 1: item 40 as a DNS entry as a functional equivalence of a Management Information Base once they are selected. To further add, Himmel discloses a DNS process per Col 6 lines 1-18. Per MPEP 2111, examiner has read the claims in light of applicant's disclosure per [0017] which states, "The frequently accessed domain name may be provided in the form of a packet, in a Management Information Base (MIB), or a DNS query"

**Applicants argue A7.** The Rejection of Claims 5, 9, 23-25, 29, 40, 44, 45, 48 and 50 is in Error and Must be Reversed

**Examiner's Response to A7.**

Please see the discussion under claims 1, 22, and 39 as discussed above.

**B. Rejection of claims 10-21, 30-38, 46, 47, and 49 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,041,360 to Himmel et al. in view of U.S. Patent Application Publication No. 2002/0065936 to Schiuma.**

**Applicants argue B1.** The Examiner Bears the Burden of Establishing a Prima Facie Case of Obviousness

**Examiner's Response to B1.**

In response to applicant's argument that examiner failed to meet this burden of establishing a prima facie case of obviousness, examiner has cited a motivation to implement a DNS cache in that it is well known to achieve the predictable results of providing faster resolution times to domain name requests. This is well known to one of ordinary skill in the art. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170

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USPQ 209 (CCPA 1971). Examiner has clearly established a prima facie case of obviousness.

**Applicants argue B2.** The Obviousness Rejection with Respect to Claims 10-21, 30-38, 46, 47, and 49 Is in Error and Must Be Reversed

**Examiner's response to B2.**

In response to applicant's arguments which mention "as previously noted with regard to the Examiner's rejection of claim 1, examiner notes that the limitations for claims 1 and 10 are different. In response to applicant's earlier arguments, the Schiuma reference was used in claim 10 and not claim 1. It is not clear how applicants arguments for claim 1 could apply for claim 10 as claim 10 fails to disclose a "communications interface". In response to applicant's arguments that I/O controller of Himmel is simply a communication interface, with no disclosure whatsoever of a "network gateway", examiner points out that I/O controller per claim 10 functions as a network gateway in that it comprises an interface between the CPE device and the IP network per applicant's disclosure per [0047]. In response to applicant's argument that Examiner does not appear to acknowledge that the cache is included in the network gateway, applicant is mistaken that Examiner acknowledges applicant disclosure discloses per [0047], "the network gateway 204 further comprises a DNS cache for caching DNS information that is relevant to applications running on one or more of the attached CPE devices 202, 212, and 214, as will be described in more detail below." Examiner relied upon Schiuma to disclose the DNS cache for the missing feature. In

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response to applicant's arguments that Schiuma is directed to caching DNS responses within a browser, and says nothing of "storing the frequently accessed domain name ... in the case" where the cache is included in the network gateway itself" examiner relied on the combined teaching of Schiuma and Himmel to disclose the missing feature of a DNS cache. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

As per independent claims 21 and 30, please see above discussion for claim 10 as they recite similar features.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Chirag R Patel/

Examiner, Art Unit 2454

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2454

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